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Animal growth promoter - comprises enzyme core encapsulated in a water soluble film and coated with an enteric coating

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Number of Countries: 020 Number of Patents: 016

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 8801512	A	19880310	WO 87US269	A	19870817	198811 B
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Priority Applications (No Type Date): AU 867714 A 19860828

Cited Patents: AU 268704; AU 504584; AU 516072; AU 7610299; FR 2419722; US 3803304; US 4447412; AU 1029976; EP 134703; EP 184754

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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WO 8801512	A	E	43		
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Designated States (Regional): AT BE CH DE FR GB IT LU NL SE

EP 319545	A	E			
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Designated States (Regional): AT BE CH DE FR GB IT LU NL SE

EP 319545	B		17		
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US 5567423	A		10	A61K-038/54	Cont of application WO 87AU269
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Cont of application US 89328075

Cont of application US 92833587

DK 171626	B			A23K-001/165	Previous Publ. patent DK 8802362
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Based on patent WO 8801512

US 5688502	A		10	A61K-038/54	Cont of application WO 87AU269
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Cont of application US 89328075

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Cont of application US 92833587

Cont of application US 94230007

Cont of patent US 5567423

CA 1322159      C      A61K-037/54  
KR 9400065      B1      A61K-037/54

Abstract (Basic): WO 8801512 A

Promotant comprises microgranules having a core consisting of one or more enzymes selected from: (i) protein digesting enzymes, (ii) carbohydrate digesting enzymes, (iii) fat digesting enzymes and (iv) fibre digesting enzymes, the core being encapsulated within a water soluble film and coated with an enteric coating comprising an alkali soluble, acid insoluble polymer or a high mol. wt. polymer whose structure is substd. with or contains windows of fatty acid or other material capable of being solubilised by intestinal juices.

Pref. the core comprises enzyme(s) immobilised within a gel-like matrix of e.g. K-carrageenan, gelatin, alginates, cellulose or its derivs. or gel forming synthetic polymers. Pref. the water soluble film is gelatin and the alkali soluble acid insoluble polymer is cellulose acetate phthalate. The high mol. wt. polymer is pref. butyl methacrylate.

USE/ADVANTAGE - The gel matrix restricts the accessibility of denaturing agents such as organic solvents used in the application of an enteric coating to the enzymes. The growth promotant enables pH sensitive digestive enzymes to be provided form inactivation in the stomach or the rumen, yet be available for action in the intestinal tract, partic. the duodenum. The growth promotants increase animal wt. gain and improve feed utilisation. They also reduce carcase backfat giving leaner meat.

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Abstract (Equivalent): EP 319545 B

(Amended) A growth promotant comprising microgranules having a core consisting of one or more immobilized enzymes selected from: (i) protein digesting enzymes; (ii) carbohydrate digesting enzymes; (iii) fat digesting enzymes; and (iv) fibre digesting enzymes; the core being encapsulated within a water soluble film, and coated with an enteric coating comprising an alkali soluble, acid insoluble polymer, or a high molecular wt. polymer whose structure is substituted with or contains windows of fatty acid or other material capable of being solubilized by intestinal juices.

(17pp)

Abstract (Equivalent): US 5688502 A

Promotant comprises microgranules having a core consisting of one or more enzymes selected from: (i) protein digesting enzymes, (ii) carbohydrate digesting enzymes, (iii) fat digesting enzymes and (iv) fibre digesting enzymes, the core being encapsulated within a water soluble film and coated with an enteric coating comprising an alkali soluble, acid insoluble polymer or a high mol. wt. polymer whose structure is substd. with or contains windows of fatty acid or other material capable of being solubilised by intestinal juices.

Pref. the core comprises enzyme(s) immobilised within a gel-like matrix of e.g. K-carrageenan, gelatin, alginates, cellulose or its derivs. or gel forming synthetic polymers. Pref. the water soluble film is gelatin and the alkali soluble acid insoluble polymer is cellulose acetate phthalate. The high mol. wt. polymer is pref. butyl methacrylate.

USE/ADVANTAGE - The gel matrix restricts the accessibility of